SEQUENCE LISTING

<110> Baum, Peter
       DuBose, Robert
       Sims, John E
       Youakim, Adel
       Hasel, Karl W
       Hilbush, Brian S

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1101  tcatgcttat tgtgttcagt gtgcccttct ccagagggcc actggcttat
1151  aggaaaggat tgctgctcta ccagttgacc aggagatggc acgccaggac
1201  attaagacac tggagttttg tttcgttttt tttttttttt ttgagatgga
1251  gtctcgctct cttgacaggc aggagtacag tggtgcgatc tcggctcact
1301  gcaaactccg cctcccgggt tcaagtgatt ctcctgcctc ggcctcccga
1351  gtagctggga ctacaggcgt gtgccaccac ccccagctaa cttttgtatt
1401  tttagtagag acagggtttc accatgttgg ccaggatggt ctcaatctct
1451  tgacctcatg atccgcccgc ctccgccttc caaagtgctg ggattacagg
1501  cgtgagccac tgtgcccggc cgacactggg ctttttatga gagtgacaga
1551  ttactaggac ctcattatgt ggtagaagta atgtagggga aatggcgatt
1601  atcttttttt aaaagcaata gctgttgtat atcaatgata aatgaaaaat
1651  tagttattct tgtaaattga agaaagaatg gttatcatag agggtagttc
1701  aagtaaaaga accagggctg ggtgtggtgg ctcacgttct gtaatccctg
1751  tactttggga ggccaaggca gatggatctc ttgaggccag gagttcgaga
1801  ccagcctgac caacatggca aaaccgtgtc tctacaaaaa atacaaaaat
1851  tagccggaca tcgtggtaga tgcctgtagt ctcagatatt caggagaccg
1901  aggggaaaat cacttgaacc cggggacgg aggttgcagt gagctgagat
1951  cgcaccactg ctcgccagcc tgggcaacag agtgagactc tgcctcaaaa
2001  aaaaaccaaa ccaaaccaaa gaaccagaat agcatgtgca catatacaca
2051  gacgtttcac aactggcatt atgttttgct actgttttat ttacaatgta
2101  tcacaagttt tatgctttaa taaaatttaa tcataacttc aaaaaaaaaa
      aaaaaaaaaa gcggccgcga att
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<210> 19
<211>
<212> DNA
<213> Homo sapiens IMX 32

<400> 19

<210> 20
<211> 2410
<212> DNA
<213> Homo sapiens

<400> 20

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gaattcggca cgaggaaaac atttgcccct tgcagaagat caccccttagt tcttcctcgg 60
aagagtatca gaaggtctgg aacctcttta accgcacgct gcctttctac tttgttcaga 120
agattgagcg agtacagaac ctggccctct gggaagtcta ccagtggtgc gttggggctc 180
gctcttggtg ggctggtgac tctgtccctt cacaccactg gctggttgcc acatgtggcc 240
cgggtttcca ggaaaagcag agcggcagtt agggctgcca tgtgctggga gctgtgtgtc 300
tgctctcctt cgtccgctcc cccagggcag tgtggtagca catcccattg tagagatgag 360
ggcaccgagg cttcctggag cataccacct ggtcccgttc atgagtggtg gcaaagctag 420
cactctcact tgtccattct gccttcctgg agaccagtgg gatgggtcag tacagcccac 480
cacaccatta gccccaggaa cataaggctg tggctagaca gcaggggtct caggttcata 540
catgaggact ggcttgtcct tgagcaccca ctcacctgtc tatgtgggga ggaatcctac 600
aataggtcac catggcaggc tgggtcttgc tgacctgtcc ccagatgggg ttggggtagt 660
gtaatgtgta ctctgtgcac agtgatgaag tctgggaatg ggagagggga gaaggatggg 720
cacccactga ccagcagcct gaaaattcct acagcatccc agggctcagc tccatgcagg 780
agcaaggtgg gggtgggggtt gggggaaatg ttacccattt tccaagggct gctctgcttt 840
tggagtccag ggaaccgctg ctgtctggag ctgtggaggg agggttttca cccagctccc 900
acgatccccc ttcttttcca cacccctggct tgtggctgga gccttacagg cctagtcagg 960
gtagcctgtg acctgcgtct cttggtccca ggacactttt ggaatttttgg aaaaatgtgt 1020
tgttttgcat caggccggct gtattggtg gccggcacac tctgccccca gcacacattc 1080
ttctgtgatt ctaggcaaaa aggacagatg cagaagcaga acggagggaa ggccgtggac 1140
gagcggcagc tgttccacgg caccagcgcc attttttgtgg acgccatctg ccagcagaac 1200
tttgactggc gggtctgtgg tgttcatggc acttcctacg gcaaggggag ctactttgcc 1260
cgagatgctg catattccca ccactacagc aaatccgaca cgcagaccca cacgatgttc 1320
ctggcccggg tgctggtggg cgagttcgtc aggggcaatg cctcctttgt ccgtccgccg 1380
gccaaggagg ctggagcaa cgccttctat gatagctgcg tgaacagtgt gtccgacccc 1440
tccatctttg tgatctttga gaaacaccag gtctacccag agtatgtcat ccagtacacc 1500
acctcctcca agccctcggt cacaccctcc atcctgctgg ccttgggctc cctgttcagc 1560
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tatttgggcc tttccttttc ttttaaaca gaaactttta atgaactgtt ctcttaacat 1680
tgacctctca atgaagttat gttcttaatc tcttgctaat aatgattttt acttttaagt 1740
cacttttggg ttcactagtg gattaaccag aagtgattgt agttgagtcc agttttgctt 1800
tttaataatg tgttgaagtt ttagtttta ctctttgttg acttttgctgc ttattggcac 1860
cagggacaga gtttctagat acaattttat ggattggttt taattttttat gagtttgtct 1920
ctgcagtgat tcggtttctc agagtctcat ggcatcatag tttttccaga atgacacagt 1980
agccaccggt ggatgacagc ccacgggcgg cacagtcact tctgcctgtt gctctgacac 2040
caacccaggc agctctgctg tggcttctcc tgggctctgg cattagttgg tctgtgtcac 2100
attgtcagaa caggtggctg ctgtgtggtg ccatcgagtc cctgctggtt cccccttgtcc 2160
tgggagggtc acccattgcc caaggaagtg catccacctg gcaggtgacc tggaggagta 2220
gcttccccga ggaccccag gcttggcctg tgattgcgca aacccacatt tcctaagcac 2280
actggacacc cttcgagtgt gggtttttaac atccctgtga gattgaatac ttgtgccaca 2340
catgtcacaa aagagtatgg aaataaaaga aaatttatcc gaaaaaaaaa aaaaaaaat 2400
gagcggccgc                                                        2410
```

```
<210> 21
<211>
<212> DNA
<213> Homo sapiens IMX 40

<400> 21
     1  ttgcagagct cgtttagtga accgtcagaa ttttgtaata cgactcacta
    51  tagggcggcc gcgaattcgg caccaggttt cccccggctc tggcagagaa
   101  acctgggttt cgacttgtga agcttgaggt tggatgtggg aattggcttg
   151  gagtcatagg cgatgagagg gacattagga tattatgaag cccgtgaact
   201  caactcctga gaaggacaca gcagagcgag agaaagatg gaataaaaag
   251  gcctacctca ttgggctcgt gtgggtgagg agaactgaag agtctgagag
   301  cgcggcacga gccagaggct acggaaaaca ctgccctcct acactccacc
   351  ttggagagac ccagaaaaga acaagcttca ttgtaaaaa aggaaaacaa
   401  ctcaggcaat ggggggtggct taaaggcact ctacagtgtg cagatgcctt
   451  ccacttcttc catctgccct gtctctccaa gaacccctat ggccccggtc
   501  tcagaacaga gctgagtgca gaaatgaaaa tctatggctc tgtgttccaa
   551  aacgatgaag aatttcaaga tggtggcagt ggtaaaatcc ttctccagga
```

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601  aaaatctgtc cttggcccaa tgtgtaaaca cttgctgagg aacttggaat
651  aacttgcagt gtcctgcagt attgtgaaac cagcaacttg ttcacaattc
701  ttctgaattt cttgggaaat ttgaagtgga gtacctgtac caacatgaaa
751  tgacacgaat ttaagtgacg ctcaacaacg aaaagcaaaa agaaccaaag
801  aggaagcaac tgaaacaaca tctggatgta tttaaaaata tacaatgcct
851  ccaaaatcag gtgtcattaa tgaaaattct gaagaaatgc caccggacat
901  agccaacgca cctacgctgt tgttattcat ttcctgcttt tcacagaaaa
951  caattttgtt gcatggaaga tcgtgaactt caaagggcag aggggaaact
1001 gtcccttggc ctctacccct ccaaggcccc acttttttcat caacactcct
1051 tggacgcagc agaagtatga acataatatg gtcctgaatg aggctgagtc
1101 tttgggcgca gaagacccgg gttaataaaa ataggaaggt aagaaaagaa
1151 aagaaaaatc aagacacatc ataggactaa attcctatta tttatccact
1201 caggattgac cacccctttg ggccagatag ttgtacccc atgtaccagg
1251 tgggcacatg aagacacaag aagtgctgtg atggttcatt ttgcacgtca
1301 ccttgcgtgg agtatgccaa ctcattgttt ggtcaaacac tagtctggac
1351 atggtggtaa aggtatttt tagatgagat taacgcttaa atcagtaaag
1401 caggttaccc accatactac gggtgggccc tgtccaatca gttgaaggca
1451 ttaagaacaa agattgaggt ttcctaaaga agatggaatt ctccttgaga
1501 ctacaacata gaaaccctat ctgagtttcc agcctgttgc cctgtggaat
1551 tcaaactcag gactccggtc tatggcatta accctcactt aacttttcag
1601 cctgccagcc tgccctatgg atttcggact tgccagccac acaattcctt
1651 aaaataaatc tctccgtct
```

```
<210> 22
<211>
<212> DNA
<213> Homo sapiens, IMX42

<400> 22
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<210> 23
<211> 1025
<212> DNA
<213> Homo sapiens

<400> 23
atggatagtc gccacacctt tgcccctgct gcgatgaccc tgtcgccact tctgctgttc 60
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caagcgttag acttctttgg gaatgggcca ccagttaact acaagacagg caatctatac 180
ctgcggggggc ccctgaagaa gtccaatgca ccgcttgtca atgtgaccct ctactatgaa 240
gcactgtgcg gtggctgccg agccttcctg atccgggagc tcttcccaac atggctgttg 300
gtcatggaga tcctcaatgt cacgctggtg ccctacggaa acgcacagga acaaaatgtc 360
agtggcaggt gggagttcaa gtgccagcat ggagaagagg agtgcaaatt caacaaggtg 420
gaggcctgcg tgttggatga acttgacatg gagctagcct tcctgaccat tgtctgcatg 480
gaagagtttg aggacatgga gagaagtctg ccactatgcc tgcagctcta cgccccaggg 540
ctgtcgccag acactatcat ggagtgtgca atgggggacc ccggcatgca gctcatgcac 600
gccaacgccc agcggacaga tgctctccag ccaccacacg agtatgtgcc ctgggtcacc 660
gtcaatggga aacccttgga agatcagacc cagctcctta cccttgtctg ccagttgtac 720
cagggcaaga agccggatgt ctgcccttcc tcaaccagct ccctcaggag tgtttgcttc 780
aagtgatggc cggtgagctg cggagagctc atggaaggcg agtgggaacc cggctgcctg 840
ccttttttt ctgatccaga ccctcggcac ctgctactta ccaactggaa aatttttatgc 900
atcccatgaa gcccagatac acaaaattcc accccatgat caagaatcct gctccactaa 960
gaatggtgct aaagtaaaac tagtttaata agcaaaaaaa aaaaaaaaa aattcctgcg 1020
gccgc 1025
```

```
<210> 24
<211> 1039
<212> DNA
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9

<213> Homo sapiens

<400> 24
gaattcggca cgagggctgc agtcgccaca cctttgcccc tgctgcgatg accctgtcgc 60
cacttctgct gttcctgcca ccgctgctgc tgctgctgga cgtccccacg gcggcggtgc 120
aggcgtcccc tctgcaagcg ttagacttct ttgggaatgg gccaccagtt aactacaaga 180
caggcaatct atacctgcgg gggcccctga agaagtccaa tgcaccgctt gtcaatgtga 240
ccctctacta tgaagcactg tgcggtggct gccgagcctt cctgatccgg gagctcttcc 300
caacatggct gttggtcatg gagatcctca atgtcacgct ggtgccctac ggaaacgcac 360
aggaacaaaa tgtcagtggc aggtgggagt tcaagtgcca gcatggagaa gaggagtgca 420
aattcaacaa ggtggaggcc tgcgtgttgg atgaacttga catggagcta gccttcctga 480
ccattgtctg catggaagag tttgaggaca tggagagaag tctgccacta tgcctgcagc 540
tctacgcccc agggctgtcg ccagacacta tcatggagtg tgcaatgggg gaccccggca 600
tgcagctcat gcacgccaac gcccagcgga cagatgctct ccagccacca cacgagtatg 660
tgccctgggt caccgtcaat gggaaaccct tggaagatca gacccagctc cttacccttg 720
tctgccagtt gtaccagggc aagaagccgg atgtctgccc ttcctcaacc agctccctca 780
ggagtgtttg cttcaagtga tggccggtga gctgcggaga gctcattgga ggcgagtggg 840
aacccggctg cctgcctttt ttttctgatc cagaccctcg gcacctgcta cttaccaact 900
ggaaaatttt atgcatccca tgaagcccag atacacaaaa ttccacccca tgatcaagaa 960
tcctgctcca ctaagaatgg tgctaaagta aaactagttt aataagcaaa aaaaaaaaaa 1020
aaaaaattcc tgcggccgc   1039

<210> 25
<211> 466
<212> DNA
<213> Homo sapiens

<400> 25
atggatagtc gccacacctt tgcccctgct gcgatgaccc tgtcgccact tctgctgttc 60
ctgccaccgc tgctgctgct gctggacgtc cccacggcgg cggtgcaggc gtcccctctg 120
caagcgttag acttctttgg gaatgggcca ccagttaact acaagacagg caatctatac 180
ctgcggggggc ccctgaagaa gtccaatgca ccgcttgtca atgtgaccct ctactatgaa 240
gcactgtgcg gtggctgccg agccttcctg atccgggagc tcttcccaac atggctgttg 300
gtcatggaga tcctcaatgt cacgctggtg ccctacggaa acgcacagga acaaaatgtc 360
agtggcaggt gggagttcaa gtgccagcat ggagaagagg agtgcaaatt caacaaggtg 420
gaggcctgcg tgttggatga acttgacatg gagctagcct cctga   466

<210> 26
<211>
<212> DNA
<213> Homo sapiens

<400> 26

<210> 27
<211> 32
<212> PRT
<213> Homo sapiens

<400> 27
Met His Trp Glu Glu Ala Gln Ile Ser Arg Ala Val Leu Ser Leu Pro
1   5   10   15

Arg Ile Asp Leu Cys Val Ser Pro Asn Lys Leu Thr Tyr Ser Pro Lys
            20   25   30

<210> 28
<211> 98

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<212> PRT
<213> Homo sapiens

<400> 28
Met Glu Phe Asn Thr Thr His Tyr Arg Glu Phe Gly Pro Arg Gly Gln
1               5                   10                  15

Glu Phe Gly Thr Arg Gln Gln Gln Gln Lys Lys Thr Glu His Leu
            20                  25                  30

His Ile Thr Asp Thr Gln Phe Lys Lys Gln Asn Ile Thr Ala Pro Ser
        35                  40                  45

Arg Ile Phe Leu Gly Ser Leu Pro Ser Leu Leu Thr Pro Asp Tyr Lys
        50                  55                  60

Gln Pro Pro Pro Ile Ser Pro Asp Ile Val Leu Tyr Glu Ser Ser Ser
65                  70                  75                  80

Ser Gln Met Gly Leu Phe Cys Pro Leu Gly Thr Leu Gly Ser Ile Trp
            85                  90                  95

Arg His
```

```
<210> 29
<211> 663
<212> PRT
<213> Homo sapiens

<400> 29
Met Ile Val Gln Met Thr Val Ile Leu Lys Leu Glu Met Pro Gln Asp
1               5                   10                  15

Ser Leu Ile Leu Glu Lys Ser Gln Asn Trp Ser Ser Gln Lys Met Asp
            20                  25                  30

His Ile Leu Ile Cys Cys Val Cys Leu Gly Asp Asn Ser Glu Asp Ala
        35                  40                  45

Asp Glu Ile Ile Gln Cys Asp Asn Cys Gly Ile Thr Val His Glu Gly
        50                  55                  60

Cys Tyr Gly Val Asp Gly Glu Ser Asp Ser Ile Met Ser Ser Ala Ser
65                  70                  75                  80

Glu Asn Ser Thr Glu Pro Trp Phe Cys Asp Ala Cys Lys Cys Gly Val
            85                  90                  95

Ser Pro Ser Cys Glu Leu Cys Pro Asn Gln Asp Gly Ile Phe Lys Glu
            100                 105                 110

Thr Asp Ala Gly Arg Trp Val His Ile Val Cys Ala Leu Tyr Val Pro
        115                 120                 125

Gly Val Ala Phe Gly Asp Ile Asp Lys Leu Arg Pro Val Thr Leu Thr
        130                 135                 140

Glu Met Asn Tyr Ser Lys Tyr Gly Ala Lys Glu Cys Ser Phe Cys Glu
145                 150                 155                 160
```

Asp Pro Arg Phe Ala Arg Thr Gly Val Cys Ile Ser Cys Asp Ala Gly
                165   170   175

Met Cys Arg Ala Tyr Phe His Val Thr Cys Ala Gln Lys Glu Gly Leu
            180   185   190

Leu Ser Glu Ala Ala Ala Glu Glu Asp Ile Ala Asp Pro Phe Phe Ala
            195   200   205

Tyr Cys Lys Gln His Ala Asp Arg Leu Asp Arg Lys Trp Lys Arg Lys
    210   215   220

Asn Tyr Leu Ala Leu Gln Ser Tyr Cys Lys Met Ser Leu Gln Glu Arg
225   230   235   240

Glu Lys Gln Leu Ser Pro Glu Ala Gln Ala Arg Ile Asn Ala Arg Leu
                245   250   255

Gln Gln Tyr Arg Ala Lys Ala Glu Leu Ala Arg Ser Thr Arg Pro Gln
                260   265   270

Ala Trp Val Pro Arg Glu Lys Leu Pro Arg Pro Leu Thr Ser Ser Ala
        275   280   285

Ser Ala Ile Arg Lys Leu Met Arg Lys Ala Glu Leu Met Gly Ile Ser
    290   295   300

Thr Asp Ile Phe Pro Val Asp Asn Ser Asp Thr Ser Ser Ser Val Asp
305   310   315   320

Gly Arg Arg Lys His Lys Gln Pro Ala Leu Thr Ala Asp Phe Val Asn
                325   330   335

Tyr Tyr Phe Glu Arg Asn Met Arg Met Ile Gln Ile Gln Glu Asn Met
            340   345   350

Ala Glu Gln Lys Asn Ile Lys Asp Lys Leu Glu Asn Glu Gln Glu Lys
            355   360   365

Leu His Val Glu Tyr Asn Lys Leu Cys Glu Ser Leu Glu Glu Leu Gln
    370   375   380

Asn Leu Asn Gly Lys Leu Arg Ser Glu Gly Gln Gly Ile Trp Ala Leu
385   390   395   400

Leu Gly Arg Ile Thr Gly Gln Lys Leu Asn Ile Pro Ala Ile Leu Arg
                405   410   415

Ala Pro Lys Glu Arg Lys Pro Ser Lys Lys Glu Gly Gly Thr Gln Lys
                420   425   430

Thr Ser Thr Leu Pro Ala Val Leu Tyr Ser Cys Gly Ile Cys Lys Lys
            435   440   445

Asn His Asp Gln His Leu Leu Leu Leu Cys Asp Thr Cys Lys Leu His
    450   455   460

Tyr His Leu Gly Cys Leu Asp Pro Pro Leu Thr Arg Met Pro Arg Lys
465   470   475   480

12

```
      Thr Lys Asn Ser Tyr Trp Gln Cys Ser Glu Cys Asp Gln Ala Gly Ser
                      485             490             495

 5    Ser Asp Met Glu Ala Asp Met Ala Met Glu Thr Leu Pro Asp Gly Thr
                  500             505             510

      Lys Arg Ser Arg Arg Gln Ile Lys Glu Pro Val Lys Phe Val Pro Gln
                  515             520             525

10    Asp Val Pro Pro Glu Pro Lys Lys Ile Pro Ile Arg Asn Thr Arg Thr
                  530             535             540

      Arg Gly Arg Lys Arg Ser Phe Val Pro Glu Glu Glu Lys His Glu Glu
      545             550             555             560

15    Arg Val Pro Arg Glu Arg Arg Gln Arg Gln Ser Val Leu Gln Lys Lys
                  565             570             575

      Pro Lys Ala Glu Asp Leu Arg Thr Glu Cys Ala Thr Cys Lys Gly Thr
20                580             585             590

      Gly Asp Asn Glu Asn Leu Val Arg Cys Asp Glu Cys Arg Leu Cys Tyr
                  595             600             605

25    His Phe Gly Cys Leu Asp Pro Pro Leu Lys Lys Ser Pro Lys Gln Thr
                  610             615             620

      Gly Tyr Gly Trp Ile Cys Gln Glu Cys Asp Ser Ser Ser Ser Lys Glu
      625             630             635             640

30    Asp Glu Asn Glu Ala Glu Arg Lys Asn Ile Ser Gln Glu Leu Asn Met
                  645             650             655

      Glu Gln Lys Asn Pro Lys Lys
35                660


      <210> 30
      <211> 372
40    <212> PRT
      <213> Homo sapiens

      <400> 30
      Met Ser Lys Ala Phe Gly Leu Leu Arg Gln Ile Cys Gln Ser Ile Leu
45      1           5               10              15

      Ala Glu Ser Ser Gln Ser Pro Ala Asp Leu Glu Glu Lys Lys Glu Glu
                  20              25              30

50    Asp Ser Asn Met Lys Arg Glu Gln Pro Arg Glu Arg Pro Arg Ala Trp
                  35              40              45

      Asp Tyr Pro His Gly Leu Val Gly Leu His Asn Ile Gly Gln Thr Cys
55            50              55              60

      Cys Leu Asn Ser Leu Ile Gln Val Phe Val Met Asn Val Asp Phe Thr
      65              70              75              80

      Arg Ile Leu Lys Arg Ile Thr Val Pro Arg Gly Ala Asp Glu Gln Arg
60                85              90              95
```

13

```
        Arg Ser Val Pro Phe Gln Met Leu Leu Leu Leu Glu Lys Met Gln Asp
                    100                 105                 110

   5    Ser Arg Gln Lys Ala Val Arg Pro Leu Glu Leu Ala Tyr Cys Leu Gln
                    115                 120                 125

        Lys Cys Asn Val Pro Leu Phe Val Gln His Asp Ala Ala Gln Leu Tyr
                130                 135                 140

  10    Leu Lys Leu Trp Asn Leu Ile Lys Asp Gln Ile Thr Asp Val His Leu
        145                 150                 155                 160

        Val Glu Arg Leu Gln Ala Leu Tyr Met Ile Arg Val Lys Asp Ser Leu
                        165                 170                 175

  15    Ile Cys Val Asp Cys Ala Met Glu Ser Ser Arg Asn Ser Ser Met Leu
                    180                 185                 190

        Thr Leu Pro Leu Ser Leu Phe Asp Val Asp Ser Lys Pro Leu Lys Thr
  20                195                 200                 205

        Leu Glu Asp Ala Leu His Cys Phe Phe Gln Pro Arg Glu Leu Ser Ser
                210                 215                 220

  25    Lys Ser Lys Cys Phe Cys Glu Asn Cys Gly Lys Lys Thr Arg Gly Lys
        225                 230                 235                 240

        Gln Val Leu Lys Leu Thr His Leu Pro Gln Thr Leu Thr Ile His Leu
  30                245                 250                 255

        Met Arg Phe Ser Ile Arg Asn Ser Gln Thr Arg Lys Ile Cys His Ser
                        260                 265                 270

  35    Leu Tyr Phe Pro Gln Ser Leu Asp Phe Ser Gln Ile Leu Pro Met Lys
                    275                 280                 285

        Arg Glu Ser Cys Asp Ala Glu Glu Gln Ser Gly Gly Gln Tyr Glu Leu
                290                 295                 300

  40    Phe Ala Val Ile Ala His Val Gly Met Ala Asp Ser Gly His Tyr Cys
        305                 310                 315                 320

        Val Tyr Ile Arg Asn Ala Val Asp Gly Lys Trp Phe Cys Phe Asn Asp
                        325                 330                 335
  45
        Ser Asn Ile Cys Leu Val Ser Trp Glu Asp Ile Gln Cys Thr Tyr Gly
                    340                 345                 350

        Asn Pro Asn Tyr His Trp Gln Glu Thr Ala Tyr Leu Leu Val Tyr Met
  50                355                 360                 365

        Lys Met Glu Cys
                370

  55
        <210> 31
        <211> 71
        <212> PRT
        <213> Homo sapiens
  60
        <400> 31
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14

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    Met Ala Ala Ala Leu Leu Pro Ser Gly Gln Asn Trp His Asn Thr Gly
     1               5                10                15

    Phe Ile Leu Glu Ser Asn Leu Thr Asn Val Met Lys Val Val Arg Leu
                 20              25              30

    Phe Ile Lys Cys Pro Cys Leu Trp Gly His Glu Lys Ile His Thr Glu
                 35              40              45

    Ser Ile Lys Asn Val Leu Asn Met Glu Arg Pro Leu Ser Asn Ser Asp
                 50              55              60

    Val Met Lys Val Val Val Phe
     65              70
```

```
<210> 32
<211>
<212> PRT
<213> Homo sapiens

<400> 32
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```
<210> 33
<211> 302
<212> PRT
<213> Homo sapiens

<400> 33
    Met Cys Thr Leu Cys Thr Val Met Lys Ser Gly Asn Gly Arg Gly Glu
     1               5                10                15

    Lys Asp Gly His Pro Leu Thr Ser Ser Leu Lys Ile Pro Thr Ala Ser
```

15

```
              20                    25                     30
    Gln Gly Ser Ala Pro Cys Arg Ser Lys Val Gly Val Gly Leu Gly Glu
            35                  40                  45
    Met Leu Pro Ile Phe Gln Gly Leu Leu Cys Phe Trp Ser Pro Gly Asn
            50                  55                  60
    Arg Cys Cys Leu Glu Leu Trp Arg Glu Gly Phe His Pro Ala Pro Thr
        65                  70                  75                  80
    Ile Pro Leu Leu Phe His Thr Leu Ala Cys Gly Trp Ser Leu Thr Gly
                    85                  90                  95
    Leu Val Arg Val Ala Cys Asp Leu Arg Leu Leu Val Pro Gly His Phe
                100                 105                 110
    Trp Asn Phe Gly Lys Met Cys Cys Phe Ala Ser Gly Arg Leu Tyr Leu
            115                 120                 125
    Val Ala Gly Thr Leu Cys Pro Gln His Thr Phe Phe Cys Asp Ser Arg
        130                 135                 140
    Gln Lys Gly Gln Met Gln Lys Gln Asn Gly Gly Lys Ala Val Asp Glu
    145                 150                 155                 160
    Arg Gln Leu Phe His Gly Thr Ser Ala Ile Phe Val Asp Ala Ile Cys
                165                 170                 175
    Gln Gln Asn Phe Asp Trp Arg Val Cys Gly Val His Gly Thr Ser Tyr
                180                 185                 190
    Gly Lys Gly Ser Tyr Phe Ala Arg Asp Ala Ala Tyr Ser His His Tyr
            195                 200                 205
    Ser Lys Ser Asp Thr Gln Thr His Thr Met Phe Leu Ala Arg Val Leu
        210                 215                 220
    Val Gly Glu Phe Val Arg Gly Asn Ala Ser Phe Val Arg Pro Pro Ala
    225                 230                 235                 240
    Lys Glu Gly Trp Ser Asn Ala Phe Tyr Asp Ser Cys Val Asn Ser Val
                245                 250                 255
    Ser Asp Pro Ser Ile Phe Val Ile Phe Glu Lys His Gln Val Tyr Pro
                260                 265                 270
    Glu Tyr Val Ile Gln Tyr Thr Thr Ser Ser Lys Pro Ser Val Thr Pro
            275                 280                 285
    Ser Ile Leu Leu Ala Leu Gly Ser Leu Phe Ser Ser Arg Gln
        290                 295                 300
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<210> 34
<211> 31
<212> PRT
<213> Homo sapiens

<400> 34
Met Pro Val Tyr Gly Ile Asn Pro His Leu Thr Phe Gln Pro Ala Ser
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        1                    5                   10                      15
        Leu Pro Tyr Gly Phe Arg Thr Cys Gln Pro His Asn Ser Leu Lys
                        20                    25                      30
```

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<210> 35
<211> 95
<212> PRT
<213> Homo sapiens

<400> 35
Met Leu Ile Glu Asp Val Asp Ala Leu Lys Ser Trp Leu Ala Lys Leu
 1               5                   10                      15

Leu Glu Pro Ile Cys Asp Ala Asp Pro Ser Ala Leu Ala Asn Tyr Val
                20                    25                      30

Val Ala Leu Val Lys Lys Asp Lys Pro Glu Lys Glu Leu Lys Ala Phe
            35                    40                    45

Cys Ala Asp Gln Leu Asp Val Phe Leu Gln Lys Glu Thr Ser Gly Phe
        50                    55                    60

Val Asp Lys Leu Phe Glu Ser Leu Tyr Thr Lys Asn Tyr Leu Pro Leu
    65                    70                    75                      80

Leu Glu Pro Val Lys Pro Glu Pro Lys Pro Leu Ala Gln Glu Lys
                    85                    90                    95
```

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<210> 36
<211>
<212> PRT
<213> Homo sapiens

<400> 36
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17

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<210> 37
<211> 261
<212> PRT
<213> Homo sapiens

<400> 37
Met Asp Ser Arg His Thr Phe Ala Pro Ala Ala Met Thr Leu Ser Pro
 1               5                  10                  15

Leu Leu Leu Phe Leu Pro Pro Leu Leu Leu Leu Asp Val Pro Thr
                20              25                  30

Ala Ala Val Gln Ala Ser Pro Leu Gln Ala Leu Asp Phe Phe Gly Asn
            35              40                  45

Gly Pro Pro Val Asn Tyr Lys Thr Gly Asn Leu Tyr Leu Arg Gly Pro
        50              55                  60

Leu Lys Lys Ser Asn Ala Pro Leu Val Asn Val Thr Leu Tyr Tyr Glu
    65              70                  75                  80

Ala Leu Cys Gly Gly Cys Arg Ala Phe Leu Ile Arg Glu Leu Phe Pro
    25              85                  90                  95

Thr Trp Leu Leu Val Met Glu Ile Leu Asn Val Thr Leu Val Pro Tyr
            100             105                 110

Gly Asn Ala Gln Glu Gln Asn Val Ser Gly Arg Trp Glu Phe Lys Cys
            115             120                 125

Gln His Gly Glu Glu Glu Cys Lys Phe Asn Lys Val Glu Ala Cys Val
    130             135                 140

Leu Asp Glu Leu Asp Met Glu Leu Ala Phe Leu Thr Ile Val Cys Met
145             150                 155                 160

Glu Glu Phe Glu Asp Met Glu Arg Ser Leu Pro Leu Cys Leu Gln Leu
            165             170                 175

Tyr Ala Pro Gly Leu Ser Pro Asp Thr Ile Met Glu Cys Ala Met Gly
        180             185                 190

Asp Pro Gly Met Gln Leu Met His Ala Asn Ala Gln Arg Thr Asp Ala
        195             200                 205

Leu Gln Pro Pro His Glu Tyr Val Pro Trp Val Thr Val Asn Gly Lys
    210             215                 220

Pro Leu Glu Asp Gln Thr Gln Leu Leu Thr Leu Val Cys Gln Leu Tyr
    225             230             235                 240

Gln Gly Lys Lys Pro Asp Val Cys Pro Ser Ser Thr Ser Ser Leu Arg
            245             250                 255

Ser Val Cys Phe Lys
            260

<210> 38
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<211> 21
<212> PRT
<213> Homo sapiens

<400> 38
Met Pro Gly Tyr Arg His Cys Thr Pro Ala Trp Val Thr Glu Arg Asp
1   5   10   15

Ser Val Ser Glu Lys
                20